

Book reviews

How to get a PhD, Estelle Phillips and D. S. Pugh. Open University Press, Milton Keynes. 1991. Pp. 161. Price £30.00 Hardback. ISBN 0 335 15537 5, £9.99 Paperback. ISBN 0 335 15536 7.

In a clear, refreshingly simplistic manner, this book provides a comprehensive guide to obtaining a PhD. The authors identify practical and common factors involved in this achievement offering assistance to those undertaking the 'quest' whether the chosen field of research is in the Arts or Sciences. These factors range from fulfilling the administrative requirements of individual universities to practical advice on how to maintain a convivial relationship between students and supervisors. It also provides help and direction for the student should this relationship be strained. The authors are obviously well aware of student types. The prospective candidate may have entered the arena bright-eyed and bushy tailed, eager to create paradigm shifts, or has taken on the PhD simply to remain in close proximity to a boy/girl friend. Regardless of their reason, however, all candidates will have very similar obstacles to overcome and it is, and I quote, 'crucial' for students wanting a PhD that they understand fully the objectives and nature of the processes involved. Moreover, it is also important they be aware that for most students the PhD process is an intensely emotional experience.

From the outset the authors emphasize, and continue to do so throughout the book, that this process is ultimately under ones own management. Whilst it is the responsibility of the supervisor(s) to teach the crafts of research, it is for the student to discuss how to apply that craft to his/her specialized area. This craft involves, of course, identifying problems, meeting deadlines and finding or being given opportunities to write papers, reports or critiques; all helping ease the task of the final write-up.

The authors are aware of the difficulties faced by even the most well intentioned helpful supervisor. How to instill that determination and application, rather than brilliance, are the keys needed to complete the process? How to inculcate the need for 'bread and butter' before dessert; you can leave the paradigm shifts for after your PhD. The authors are sympathetic to the academic and social worker role the supervisor is expected to play once accepting a student. They offer sound advice on how to identify and develop the skills required. In the present academic climate it pays, and no doubt will increasingly continue to do so, to be a conscientious supervisor. However, whether or not the supervisor has played this role to the fullest, at the end of the day the outcome (success or failure) must rest with the student. *How to get a PhD* is an aid towards a successful outcome. I would suggest it should be compulsory reading

for all prospective students and their mentors in the PhD experience.

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Practical Genetics, R. N. Jones and G. K. Rickards. Open University Press, Milton Keynes. 1991 Pp. 228. Price £35.00 Hardback. ISBN 0 35 09218 7. Price £14.99 Paperback. ISBN 0 335 09217 9.

The authors describe this publication as 'a book about practical genetics', and identify their target audience as at the school/college/university/polytechnic interface level. The experiments contained in the book range across the whole spectrum of classical and microbial genetics, starting with mitosis and meiosis, in plants and insects respectively, and continuing with *Drosophila* crosses; mutant isolation, recombination and linkage analysis in yeast, *Sordaria* and *Aspergillus nidulans*; polymorphism in clover populations; plant genetics (crosses with seedlings and maize ears); genetics with humans (common traits, blood groups and chromosome preparations); and simple bacterial crosses.

Much of the book has a very familiar ring. Having taught an elementary genetics course for 15 years at university level, these experiments are all old friends. Some of them (a small minority) are still included in our present courses, but they are almost all now very long in the tooth and we, and I suspect most university departments, have long since moved on to a more modern approach. The authors do point out that the schedules and excercises are known to work repeatedly and well, and this is certainly true. These experiments have been in use for so long now that almost all of the faults have been ironed out. The *Drosophila* experiments, for example, are based to a considerable extent on those described in Strickberger's book *Experiments in Genetics with Drosophila*, published in 1962, while the bacterial experiments are based on the classic book by Clowes and Hayes, published in 1968.

None of which is to say that these experiments are not still very valuable and useful as teaching excercises, particularly if they can be developed for school/college purposes to introduce the basic principles of the subject. My feeling about the experiments described in the book, however, is that they have not been so developed. They seem little